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EXAMINER

PHAM, THOMAS K

ART UNIT

PAPER NUMBER

2121

DATE MAILED: 03/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/720,750

Applicant(s)

WATANABE ET AL.

Examiner

Thomas K. Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-8 and 11 is/are allowed.
- 6) ☒ Claim(s) 1-5, 9, 10 and 12-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. This is in response to the amendment filed 01/12/2006.
2. New claims 12-19 have been entered.
3. Claims 6-8 and 11 are allowed.
4. Applicant's arguments with respect to claims 1-5, 9-10 have been considered but are moot in view of the new ground(s) of rejection.

Quotations of U.S. Code Title 35

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim Rejections - 35 USC § 101

8. The language of the claim raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

Claim 12 is rejected under 35 U.S.C. 101 as directed to non-statutory subject matter. The claimed invention is nothing more than an abstract idea that is not a practical application producing a useful and tangible result as explain below:

- applicant's disclosure seems to have a utility required for a practical application, however, the claim does not reflect the disclosure. Thus, the claimed invention as a whole lacks patentable utility that required for a practical application producing useful result. For example, the functional operation of the system as claimed alone does not produce any useful result.
- in addition, the claimed invention do not provide a tangible or real-world result. A tangible requirement required that the claim must recite more than a Sec. 101 judicial exception, in that the process claim must set forth a practical application of that Sec. 101 judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at 676-77 (invention ineligible because had "no substantial practical application."). "[A]n application of a law of nature or mathematical formula to a . . . process may well be deserving of patent protection." Diehr, 450 U.S. at 187, 209 USPQ at 8 (emphasis added); see also Corning, 56 U.S. (15 How.) at 268, 14 L.Ed. 683 ("It is for the discovery or invention of some practical method or means of producing a beneficial result or effect,

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that a patent is granted . . ."). In other words, the opposite meaning of "tangible" is "abstract."

Claim 13 is rejected under 35 U.S.C. 101 as non-statutory for at least the reason that it is not producing a tangible result. Claim 13 is depended on claim 12, however, it does not add any feature or subject matter that represent any real-world result.

Claim 15 is rejected under 35 U.S.C. 101 as directed to non-statutory subject matter. The claimed invention is nothing more than an abstract idea that is not a practical application producing a useful and tangible result as explain below:

- applicant's disclosure seems to have a utility required for a practical application, however, the claim does not reflect the disclosure. Thus, the claimed invention as a whole lacks patentable utility that required for a practical application producing useful result. For example, based on the method steps of "outputting", "receiving" and "determining", the method steps as claimed do not produce a useful result.
- in addition, the claimed invention do not provide a tangible or real-world result. A tangible requirement required that the claim must recite more than a Sec. 101 judicial exception, in that the process claim must set forth a practical application of that Sec. 101 judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at 676-77 (invention ineligible because had "no substantial practical application."). "[A]n application of a law of nature or mathematical formula to a . . . process may well be deserving of patent protection." Diehr, 450 U.S. at 187, 209 USPQ at 8 (emphasis added); see also Corning, 56 U.S. (15 How.) at 268, 14 L.Ed. 683 ("It is for the discovery or

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invention of some practical method or means of producing a beneficial result or effect, that a patent is granted . . ."). In other words, the opposite meaning of "tangible" is "abstract."

Claim 16 is rejected under 35 U.S.C. 101 as non-statutory for at least the reason that it is not producing a tangible result. Claim 16 is depended on claim 15, however, it does not add any feature or subject matter that represent any real-world result.

Claim Rejections - 35 USC § 103

9. Claims 1-7, 9, 10 and 12-19 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,678,714 ("Olapurath") in view of U.S. Patent No. 6,038,585 ("Togawa").

Regarding claim 1

Olapurath teaches a production cell comprising

- a plurality of work performing elements for performing work (see FIG. 1 and col. 2 lines 57-62, "Fulfiller 1060"), and an information processing device for commanding work tasks (see FIG. 1 "task server 1010" and col. 3 lines 4-7), connected to the respective work performing elements by communications means (see FIG. 1 "communication link 1020" and col. 2 lines 63-67);
- wherein said information processing device outputs a command consisting of a set of task units assigned with an execution sequence, to each of the work performing elements (see col. 3 lines 25-30); and
- the work performing elements each store operating programs for respectively executing one or more task units (see col. 4 lines 50-52), and perform work by executing the operating programs in the order of the execution sequence, on the basis of the set of task

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units with an assigned execution sequence output by said information processing device (see col. 4 lines 55-67).

Olapurath does not specifically teach the information processing device receiving notifications for executability from the work performing elements, and sending an execution command to one of the work performing elements having sent one of said received notifications for executability.

However, Togawa teaches an autonomous distributed instruction book control device for executing a sequential processing procedures and instruction data contained within an instruction book which includes an instruction book management unit (information processing device) receiving notifications for executability from an instruction book control unit and processing unit (work performing elements) (see Col. 15 lines 1-4), and sending an execution command to an appropriate selected free processor to execute the instruction book (see Col. 15 lines 8-15) for the purpose of executing a plurality of target processes by using a processing unit suited to the particular plurality of target processes (see Col. 1 lines 55-60).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the control device of Togawa with the system of Olapurath because it would provide for the purpose of executing a plurality of target processes by using a processing unit suited to the particular plurality of target processes.

Regarding claim 12

Olapurath teaches a production system, comprising:

- an information processing device outputting a work command as a set of task units (see col. 3 lines 25-30); and

- work performing elements in communication with the information processing device (see FIG. 1, “task server 1010 is in communication with fulfillers 1060”) and receiving the work command from the information processing device (see Col. 2 lines 59-62).

Olapurath does not specifically disclose each of the work performing elements making a determination as to whether the work performing element can execute one of the task units and sending a notification for executability to the information processing device if the task unit is executable.

However, Togawa teaches an autonomous distributed instruction book control device for executing a sequential processing procedures and instruction data contained within an instruction book which includes an instruction book processing unit (work performing element) making a determination of which of the processes of the tasks is to be executed next (see Col. 2 lines 51-54), and sending notification for executability to an instruction book management unit (information processing device) if the instruction book is ready for execute (see Col. 15 lines 1-4) for the purpose of executing a plurality of target processes by using a processing unit suited to the particular plurality of target processes (see Col. 1 lines 55-60).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the control device of Togawa with the system of Olapurath because it would provide for the purpose of executing a plurality of target processes by using a processing unit suited to the particular plurality of target processes.

Regarding claim 15

Olapurath teaches a method of executing a sequence of task units, comprising:

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- outputting a work command as a set of task units from an information processing device to a plurality of work performing elements (see col. 3 lines 25-30);
- receiving, at the work performing elements, the work command from the information processing device (see col. 3 lines 25-30); and

Olapurath does not specifically teach determining, at each of the work performing elements, whether the specific work performing element can execute at least one of the task units that is to be executed next.

However, Togawa teaches an autonomous distributed instruction book control device for executing a sequential processing procedures and instruction data contained within an instruction book which includes an instruction book processing unit (work performing element) making a determination of which of the processes of the tasks is to be executed next (see Col. 2 lines 51-54) for the purpose of executing a plurality of target processes by using a processing unit suited to the particular plurality of target processes (see Col. 1 lines 55-60).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the control device of Togawa with the system of Olapurath because it would provide for the purpose of executing a plurality of target processes by using a processing unit suited to the particular plurality of target processes.

Regarding claim 2

Olapurath teaches wherein the management of the task unit to be executed next is performed by the information processing device, each time the work in one task unit is completed (see col. 7 lines 43-53).

Regarding claim 3

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Olapurath teaches wherein the management of the task unit to be executed next is performed by communications between the work performing elements, each time the work in one task unit is completed (see col. 4 line 66 to col. 5 line 4).

Regarding claim 4

Olapurath teaches comprising two or more work performing elements capable of performing the work of the same task unit, wherein the work performing element to carry out the work of said same task unit is determined by said information processing device (see col. 7 lines 14-19).

Regarding claim 5

Olapurath teaches two or more work performing elements capable of performing the work of the same task unit, wherein the work performing element to carry out the work of said same task unit is determined by communications between the work performing elements, in accordance with a previously determined priority order (see col. 7 lines 46-53).

Regarding claim 9

Olapurath teaches a new work command can be received and work tasks corresponding to said new work command can be executed, while executing work tasks corresponding to another work command already received (see col. 7 line 66 to col. 8 line 5).

Regarding claim 10

Olapurath teaches the types of said work commands are determined by the types of workpiece that are to be processed (see col. 10 lines 33-60).

Regarding claim 13

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Togawa teaches the instruction book control unit (work performing element) notifying the information processing device that execution of one of the task units is possible sends a task efficiency value of the executable task unit (see Col. 9 lines 24-35).

Regarding claim 14

Togawa teaches upon receipt of the notifications for executability and the task efficiency values from the work performing elements, the information processing device selects one of the work performing elements having sent one of the notifications for executability and sends an execution command to the selected work performing element to execute the task unit (see Col. 6 lines 43-51).

Regarding claim 16

Togawa teaches notifying the information processing device that at least one of the task units can be executed if the work performing element determines that one of the task units can be executed (see Col. 2 lines 51-54, Col. 9 lines 29-35 and Col. 15 lines 1-4).

Regarding claim 17

Togawa teaches selecting, at the information processing device, one of the work performing elements that notified the information processing device that execution of at least one specified task unit is possible (see Col. 2 lines 51-54 and Col. 15 lines 1-4); and outputting an execution command to the selected work performing element to execute the specified task unit (see Col. 6 lines 43-51).

Regarding claim 18

Togawa teaches receiving, prior to the selection of one of the work performing elements, a task efficiency value for the specified task unit from each of the work performing elements capable of

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executing the specified task unit (see Col. 9 lines 24-35); and selecting, based on the task efficiency value, one of the work performing elements to execute the specified task unit (see Col. 6 lines 43-51).

Regarding claim 19

Togawa teaches receiving, after execution of a specified task unit, notification that the specified task unit is executed (see Col. 13 lines 58-61); and outputting a successive execution command to a selected work performing element to execute the next task unit in a task unit execution sequence (see Col. 13 lines 61-64).

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Thomas Pham*; whose telephone number is (571) 272-3689, Monday - Thursday from 6:30 AM - 5:00 PM EST or contact Supervisor *Mr. Anthony Knight* at (571) 272-3687.

Any response to this office action should be mailed to: **Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450**. Responses may also be faxed to the **official fax number (571) 273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thomas Pham
Patent Examiner

A handwritten signature in black ink, appearing to read 'Thomas Pham', with a long horizontal flourish extending to the right.

March 23, 2006